## THE ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

66TH STREET AND YORK AVENUE

NEW YORK 21, N. Y.

Feb. 7, 1956

Dear Joshua:

Thanks for the letter. I will answer it in detail in the near future.xxxxxxxxxNeed some time to think about it. The precis was just that, written more for me than anyone else as I was trying out ideas etc . Only sent it out on impulse, The paper when and if it gets written will fill in the details.

Just a few points. Am afraid of uv/uv as there are such things as mutations and the order of magnitude of effect is I gather much lower than those I have been dealing with. Can differentiate strains A and C without this.

The law of maximum unhappiness has set in (you know things simple in concept but difficult in detail a la coli recombination). While linkage group two has settled down so it is only necessary (at the moment) to postulate two alternative compatability factors, linkage group one may require three if not more . Think I can lick it though.

The thing I should like to clarify most is that in the get recombination between "latent gonophage" and vegetative phage depends on the degree of leakiness between the compatability factors and this is as yet unpredictable. Thus P4 or P5 both breed true on strains C and D but not on A. I am sure this is only a partial truth but if most of the phage breeds true the finding of the maker mutants host range and others becomes an impossible task. One has to have just the right degree of leakiness and I can only take what I get here. Thus LT22 delysogenized may breed all of the phages true as does strain C. This is why + prefer heterologous immunity to sensitivity. The heterology refers here to compatability factors make specifically. Homologous factors give complete immunity; heterologous, Lines morton sensitivity at all levels.

(over)

P.S. Anghow world like a culture of LT-12. Their has died at M.